

CLAIMS

What is claimed is:

1. A method of modifying content data transmitted from a first computer to a second
5 computer over a bi-directional communications network, comprising:

specifying output characteristics to be associated with the content data upon
output by the second computer;

transmitting the content data from the first computer to the second computer over
the network; and

10 altering the content data in accordance with the content data output characteristics
to produce altered content data.

2. The method of claim 2 further comprising the steps of:

receiving the content data in the first computer;

15 digitizing the received content data to produce digitized content data;

transmitting the digitized content data to the second computer over the network;

altering the digitized content data in accordance with the content data output
characteristics;

transforming the altered digitized content data to a form capable of output from

20 the second computer; and

outputting the transformed altered digitized content data from the second
computer.

3. The method according to claim 1, wherein the received content data comprises text data input into the first computer.

4. The method according to claim 1, wherein the received content data comprises voice data input into the first computer through a microphone coupled to the first computer.

5. The method according to claim 4 wherein the transformed altered digitized content data comprises audio output transmitted through speakers coupled to the second computer.

6. The method according to claim 5 wherein the content data output characteristics include parameters that alter characteristics associated with the voice output from the second computer, the output characteristics comprising at least one of character gender, character condition, character environment, and language.

7. The method according to claim 5 wherein the content data output characteristics are input by the user of the first computer through a user interface.

8. The method according to claim 5 wherein the content data output characteristics are input by the user of the second computer through a user interface.

9. The method according to claim 5 wherein the content data output characteristics are stored in a database residing in memory coupled to the second computer.

10. The method according to claim 5 wherein the first computer is coupled to a plurality of client computers over an interactive network, and wherein each user of a client computer is associated with a character represented in a program executed on each computer, each character having associated therewith a specific content data output characteristic, the method further comprising the steps of:

determining a relative location of the user characters in an environment defined by the program;

altering the output characteristics of the output audio depending upon the location of each character associated with each of the users.

11. The method of claim 10 wherein each of the client computers includes a left and right speaker pair, and wherein the output characteristics comprise a relative volume ratio of output from the left and right speakers.

12. The method of claim 10 wherein the relative location information for each of the users is stored locally for each of the users.

13. The method of claim 10 wherein the relative location information for each of the users is determined by a relative physical location of the users with respect to the interactive network.

14. A system coupling a two or more computers over a bi-directional network, and configured to modify content data transmitted from a computer over the bi-directional communications network, the system comprising:

5 means for specifying output characteristics to be associated with the content data upon output by a second computer of the two or more computers;

means for transmitting the content data from a first computer of the two or more computers to the second computer over the network; and

10 means for altering the content data in accordance with the content data output characteristics to produce altered content data.

15. The system of claim 14 further comprising:

means for receiving content data in the first computer;

means for digitizing the received content data to produce digitized content data;

15 means for transmitting the digitized content data to the second computer over the network;

means for altering the digitized content data in accordance with the content data output characteristics;

20 means for transforming the altered digitized content data to a form capable of output from the second computer; and

means for outputting the transformed altered digitized content data from the second computer.

16. The system according to claim 14, wherein the received content data comprises voice data input into the first computer through a microphone coupled to the first computer, and wherein the transformed altered digitized content data comprises audio output transmitted through speakers coupled to the second computer.

5

17. The system according to claim 16 wherein the content data output characteristics include parameters that alter characteristics associated with the voice output from the second computer, the output characteristics comprising at least one of character gender, character condition, character environment, and language.

10

18. The system according to claim 17 further comprising graphical user input means for receiving content data output characteristics input by the user of the second computer.

15

19. The system according to claim 17 further comprising graphical user input means for receiving content data output characteristics input by the user of the first computer.

20. The system according to claim 18 further comprising:
means for determining a relative location of the two or more users coupled to the second computer; and
means for altering the output characteristics of the output audio depending upon the location of each character associated with each of the two or more users.

20

21. The system of claim 20 wherein the speakers coupled to the second computer comprise a left and right speaker pair, and wherein the output characteristics comprise a relative volume ratio of output from the left and right speakers.

5 22. A server computer coupled to one or more client computers over a bi-directional communications network, comprising:

a circuit to transmit content data to a second computer of the one or more client computers over the network;

a circuit to specify output characteristics to be associated with the content data
10 upon output by the second computer; and

a circuit to alter the content data in accordance with the content data output characteristics to produce altered content data.

23. The server computer of claim 22 further comprising:

15 a circuit to receive the content data from a user; and

a circuit to digitize the received content data to produce digitized content data and transmit the digitized content data to the second computer over the network.

24. The server computer of claim 23, wherein the received content data comprises

20 text data input into the server computer.

25. The server computer of claim 24, wherein the received content data comprises voice data input into the first computer through a microphone coupled to the server computer.

26. The server computer according to claim 25 wherein the content data output characteristics include parameters that alter characteristics associated with the voice output from the second computer, the output characteristics comprising at least one of character gender, character condition, character environment, and language.

27. The server computer according to claim 23 wherein the network comprises an interactive network, and wherein the server computer and the one or more client computers game consoles configured to execute interactive game software.

28. The server computer according to claim 27 wherein the specific content data output characteristics are associated with respective characters in the game software, each character associated with a particular client computer of the one or more client computers.

29. The server computer according to claim 28 comprising:

a circuit to determine a relative location of the respective characters within the game program; and

a circuit to alter the output characteristics of the output audio depending upon the location of each character associated with each of the one or more client computers.

30. A server computer coupled to one or more client computers over a bi-directional communications network, comprising:

means for transmitting content data to a second computer of the one or more

5 client computers over the network;

means for specifying output characteristics to be associated with the content data upon output by the second computer; and

means for altering the content data in accordance with the content data output characteristics to produce altered content data.

10